

Alaska Department of Fish and Game  
Division of Wildlife Conservation  
September 2002

## Preparation of Manuscripts on Marten Ecology in Southeast Alaska

Rodney W. Flynn

Research Performance Report  
1 July 2001–30 June 2002  
Federal Aid in Wildlife Restoration  
Grant W-27-5, Study 7.20

This is a progress report on continuing research. Information may be refined at a later date.

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# **FEDERAL AID ANNUAL RESEARCH PERFORMANCE REPORT**

**PROJECT TITLE:** Preparation of manuscripts on marten ecology in Southeast Alaska

**PRINCIPAL INVESTIGATOR:** Rodney W. Flynn

**COOPERATORS:** Merav Ben-David, University of Wyoming

**FEDERAL AID GRANT PROGRAM:** Wildlife Conservation

**GRANT AND SEGMENT NR.:** W-27-5

**PROJECT NR.:** 7.20

**WORK LOCATION:** Douglas

**STATE:** Alaska

**PERIOD:** July 1, 2001-June 30, 2002

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## **I. PROGRESS ON PROJECT OBJECTIVES**

OBJECTIVE 1: Analyze previously collected data on marten ecology.

Additional analyses on previously collected data on marten ecology were completed. Multivariate approaches were explored to better understand habitat-use relationships. New approaches for the analysis of population data were incorporated into the analyses. Because of the amount of data available and peer comments, not all appropriate analyses were completed.

OBJECTIVE 2: Prepare manuscript on marten habitat relationships.

Data files were assembled and additional analyses were incorporated on marten habitat use and available habitats. One manuscript on marten denning and resting structures was completed, submitted for publication, and revised. Based on peer comments, more analyses will need to be completed. A second manuscript on macro-scale habitat use was not completed because of time limitations.

OBJECTIVE 3: Prepare manuscript on factors affecting marten abundance.

Three manuscripts were in various stages of publication. None of these manuscripts were

actually published as planned. More work, especially the inclusion of peer comments, will be needed on each manuscript to achieve successful publication.

## **II. SUMMARY OF WORK COMPLETED ON JOBS IDENTIFIED IN ANNUAL PLAN THIS PERIOD**

JOB 1: Analyze previously collected data on marten ecology.

Additional analyses on previously collected data on marten ecology were completed. Computer hardware and software were updated to keep pace with recent advancements, especially GIS. Landcover and topographic GIS coverages were updated as new information became available. Worked with US Forest Service and Fish and Wildlife Service to improve the exchange of GIS information. Multivariate approaches to data analysis were explored to better understand habitat-use relationships. New approaches for the analysis of population data were incorporated into the analyses. Because of the amount of data available and peer comments, not all appropriate analyses were completed.

JOB 9: Prepare manuscript on marten habitat relationships.

Data files were assembled and reviewed including marten habitat use and available habitats. GIS system was upgraded to allow for more sophisticated spatial analyses. Consulted with staff biometrician on analytical procedures. Manuscript titled "Denning and resting structures of American martens in Southeast Alaska" was completed, submitted for publication, returned, and revised. Although most of the analyses were completed, a second planned manuscript on macro-scale habitat use was not completed because of time limitations.

JOB 10: Prepare manuscript on factors affecting marten abundance.

Draft manuscript titled "Marten abundance on northeast Chichagof Island, Southeast Alaska, 1991-98" was prepared and is currently being reviewed by peers. Draft manuscript titled "Marten sex ratios in trapper catches - what do they tell us?" was revised. First draft of manuscript titled "Diet, body condition, and reproduction in American marten" was prepared. None of these manuscripts were actually published as planned. More work, especially the inclusion of peer comments, will be needed on each manuscript to achieve successful publication.

## **III. ADDITIONAL FEDERAL AID-FUNDED WORK NOT DESCRIBED ABOVE THAT WAS ACCOMPLISHED ON THIS PROJECT DURING THIS SEGMENT PERIOD**

### **VII. PROJECT COSTS FOR THIS SEGMENT PERIOD**

FEDERAL AID SHARE \$ 43,200 + STATE SHARE \$ 14,400 = TOTAL \$57,600

**V. PREPARED BY:**

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**SUBMITTED BY:**

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**APPROVAL DATE:** \_\_\_\_\_